

## A MOTOR VEHICLE FENDER HAVING A BREAKABLE ZONE

The present invention relates to the field of safety for pedestrians involved in road traffic accidents.

### BACKGROUND OF THE INVENTION

5 It is known that the regions of the bodywork of a motor vehicle surrounding the junctions between each front fender and the hood are particularly dangerous for pedestrians since said regions are very rigid.

### BRIEF SUMMARY OF THE INVENTION

10 The invention seeks to protect pedestrians by deploying airbags outside the vehicle to cover those dangerous regions and prevent or dampen any impacts against them.

To this end, the invention provides a motor vehicle fender having a skin separating the inside and the outside of the fender, wherein said skin possesses a breakable zone suitable for opening when subjected to thrust from the inside towards the  
15 outside of the fender.

According to other advantageous features of the invention:

- the fender is made of plastics material, for example of a thermoplastic material or a thermosetting material;
- the inside of the fender includes an airbag housing situated in register with the  
20 breakable zone; and
- the airbag housing is integrally molded with the fender made of plastics material.

## DETAILED DESCRIPTION OF THE INVENTION

There follows a detailed description of an embodiment of the invention given by way of example.

A motor vehicle front fender is formed from NORYL® GTZ, which is a polymer  
5 blend comprising polyamide reinforced with modified polyphenylene ether polymer. The fender comprises a skin having an outside face and an inside face. The outside face of the fender is intended to be exposed and visible from outside the vehicle, while the inside face is intended to face towards the inside of the vehicle when the fender is in position on the vehicle. The outside face is thus on the outside of the fender and thus the inside face  
10 is on the inside of the fender.

The thickness of the skin is substantially equal to 2 millimeters (mm).

The fender generally occupies a vertical plane (when in position on the vehicle) and is terminated on top by a top edge close to the hood.

In the vicinity of this edge, a substantially rectangular breakable zone is defined  
15 by a shallow groove, e.g. having a depth of 1 mm.

To preserve the appearance of the fender, the groove is formed in the inside face only, the outside face being uniform, including over the groove.

This groove forms a line of weakness that gives way to open up a rectangular  
passage through the fender in the event of thrust coming from inside the fender and  
20 acting towards the outside.

This thrust can result from the violent deployment of an airbag housed in a housing located on the inside face of the fender in register with the breakable zone

defined by the groove. The housing may either be fitted to the fender or it may be integrally molded therewith.

This particular embodiment is described purely by way of example and does not present any limiting character.